



IFW AF/3721
[600.1201]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re: Application of: Barry Mark JACKSON, et al.
Serial No.: 10/016,548
Filed: December 13, 2001
For: FOLDER CYLINDER WITH SUPPORT
PLATE
Art Unit: 3721
Examiner: Sameh TAWFIK

Mail Stop: APPEAL
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

June 25, 2004

APPELLANTS' BRIEF UNDER 37 C.F.R. § 1.192

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Final Rejection dated December 30, 2003 in this application. An original and two copies of this brief are submitted herewith. The statutory fee of \$330.00 is paid concurrently herewith.

1. REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business at Kurfuersten-Anlage 52-60, D-69115 Heidelberg, Germany, the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned by inventors Barry Mark

Jackson and David Clarke Pollock to Heidelberger Druckmaschinen AG. The assignment was recorded on March 8, 2002 at reel 012686/ frame 0006.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 4, 6, 7, and 17 to 27 are pending. Claims 1 to 4, 6, 7, and 17 to 27 have been finally rejected as per the Final Office Action dated December 31, 2003. Claims 5 and 8 to 16 have been canceled.

The rejection to claims 1 to 4, 6, 7, and 17 to 27 thus is appealed. A copy of appealed claims 1 to 4, 6, 7, and 17 to 27 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS AFTER FINAL

No amendments after final were made.

5. SUMMARY OF THE INVENTION

The present invention provides for a folding cylinder (e.g. 34 in Fig. 2, specification page 5, line 14) comprising a plurality of gripping devices (e.g. pins 50 in Fig. 2, specification page 5, line 15 and also specification at page 3, lines 21 to 22) supported on a first rotatable support (e.g. gripper spider 150 in Fig. 2, specification page 5, line 15) and including a first gripping device (e.g. one of pins 50 in Fig. 2, specification page 5, line 15) for holding a signature (e.g. 102 in Fig. 2, specification page 5, line 12) on the cylinder (e.g. 34 in Fig. 2, specification page 5 line 11); a plurality of tucking devices (e.g. 46 in Fig. 2, specification page 5, line 13) supported on a second rotatable support (e.g. 146 in Fig. 2, specification page 5 line 14), the tucking devices including a first tucking device (e.g. one of tuckers 46 in Fig. 2, specification page 5 line 13) and a second tucking device (e.g. another of tuckers 46 in Fig. 2, specification page 5 line 13). The first gripping device is located

circumferentially between the first tucking device and second tucking device (e.g. as shown in Fig. 2). The first and second rotatable supports are rotatable with respect to each other so as to set a fold position of the signature (e.g. as described in the specification at page 6, lines 12 to 15). A cover (e.g. 60 in Fig.2 and 92 in Fig. 4, specification page 5, line 16 and page 6, line 4) is fixed to the second rotatable support (e.g. 146 in Fig. 2, specification page 5 line 17), and extends circumferentially over the first gripping device (e.g. pin 50 in Fig. 2, as described in the specification at page 5, lines 18 to 21) between the first tucking device and the second tucking device, the cover (e.g. 60 in Fig. 2, specification page 5 line 16) having at least one aperture (e.g. 94 in Fig. 4, specification page 5, line 18 and page 6, line 18 to 22), the first gripping device (e.g. pin 50 in Fig. 2, as described in the specification at page 5, lines 18 to 21) capable of extending through the at least one aperture (see, e.g, specification at page 5, line 18).

6. ISSUES

Whether claims 1 to 4, 6, 7, and 17 to 27 should be rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,367,792 to Chagnon in view of U.S. Patent No. 5,122,109 to Kubota.

7. GROUPING OF CLAIMS

Group I: Claims 1 to 4, 6, 7, and 17 to 21. All appealed claims thus stand or fall together.

8. ARGUMENTS

Claims 1 to 4, 6, 7, and 17 to 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chagnon (U.S. Patent No. 6,367,792) in view of Kubota et al. (U.S. Patent No. 5,122,109).

Chagnon discloses a standard transfer cylinder with grippers 28/13 and folding blades 23/14 in a folder and is similar to the prior art described in Fig. 1 by the present applicants.

Such a cylinder works by having the lead edge of the signature gripped the gripper or pin, and the folding blades extend from the cylinder surface to tuck the signature at a fold into a jaw of another cylinder, called a jaw cylinder. The signature thus can be folded. The signature for example can be a section of a newspaper.

Kubota et al. is discussed in the Background Section of the present application at page 2, lines 9 to 16. Kubota also discloses a cylinder having grippers or pins 4, and tucking or folding blades 2.

Kubota teaches using bands 27 with holes, through which the blades 2 extend. The bands 27 do not cover or extend over the pins 4, as clearly shown in Fig. 2 of Kubota, and pins 4 are at a different circumferential location of the cylinder of Kubota than where the bands 27 are located.

Claim 1 recites a folding cylinder comprising:

a plurality of gripping devices supported on a first rotatable support and including a first gripping device for holding a signature on the cylinder;

a plurality of tucking devices supported on a second rotatable support, the tucking devices including a first tucking device and a second tucking device, the first gripping device being located circumferentially between the first tucking device and second tucking device, the first and second rotatable supports being rotatable with respect to each other so as to set a fold position of the signature; and

a cover fixed to the second rotatable support and extending circumferentially over the first gripping device between the first tucking device and the second tucking device, the cover having at least one aperture, the first gripping device capable of extending through the at least one aperture.

Neither Chagnon nor Kubota discloses “a cover ...extending circumferentially over the first gripping device..., the first gripping device capable of extending through the at least one aperture” as claimed. Claim 17 recites a similar limitation.

Chagnon discloses no cover at all.

Kubota, as admitted in the Office Action, shows a band over a folding blade, not over a gripper. A combination of Chagnon and Kubota, even of a proper motivation to combine were present, would not result in the limitations of claim 1 being met. One of skill in the art reading Kubota would have placed a band over the folding blade of Chagnon, not over the gripper or pins as claimed. There is absolutely no teaching or suggestion to place a band over the gripper of Chagnon, and in fact Kubota teaches away from the claimed limitation of a cover extending over the gripping device, as it chooses to place a cover over a different element, namely the tucking blade, and leave the gripper exposed.

In addition, Chagnon is directed to reducing the spacing 43 using a retractable part 29. Use of a cover with the Chagnon device would render the retractable part 29 inoperative or at the least superfluous, and thus there is no need or reason to provide a cover to the Chagnon device given the fact that it already has a retractable part 29 to provide for an extended circumferential surface.

Withdrawal of the rejection to claims 1 and 17 and their dependent claims is respectfully requested.

Respectfully submitted,

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APPENDIX A:

**PENDING CLAIMS 1 to 4, 6, 7, and 17 to 27 OF U.S.
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Claim 1 (previously presented): A folding cylinder comprising:

a plurality of gripping devices supported on a first rotatable support and including a first gripping device for holding a signature on the cylinder;

a plurality of tucking devices supported on a second rotatable support, the tucking devices including a first tucking device and a second tucking device, the first gripping device being located circumferentially between the first tucking device and second tucking device, the first and second rotatable supports being rotatable with respect to each other so as to set a fold position of the signature; and

a cover fixed to the second rotatable support and extending circumferentially over the first gripping device between the first tucking device and the second tucking device, the cover having at least one aperture, the first gripping device capable of extending through the at least one aperture.

Claim 2 (original): The cylinder as recited in claim 1 wherein the at least one aperture includes a plurality of apertures spaced axially next to each other.

Claim 3 (original): The cylinder as recited in claim 2 wherein the first gripping device includes a plurality of axially spaced grippers.

Claim 4 (original): The cylinder as recited in claim 2 wherein the first gripping device includes a plurality of axially spaced impaling pins.

Claim 6 (original): The cylinder as recited in claim 1 wherein the second support is a spider having a first spider arm supporting the first tucking device and a second spider arm supporting the second tucking device, the cover being fixed at one end to the first spider arm and at another end to the second spider arm.

Claim 7 (original): The cylinder as recited in claim 1 further including a second cover covering a second of the plurality of gripping devices.

Claim 17 (previously presented): A folding cylinder comprising:

- a plurality of gripping devices supported on a first rotatable support and including a first gripping device for holding a signature on the cylinder;

- a plurality of tucking devices supported on a second rotatable support, the tucking devices including a first tucking device and a second tucking device, the first gripping device being located circumferentially between the first tucking device and second tucking device, the first and second rotatable supports being rotatable about a same central axis; and

- a cover fixed to the second rotatable support and extending circumferentially over the first gripping device between the first tucking device and the second tucking device, the cover having at least one aperture, the first gripping device capable of extending through the at least one aperture.

Claim 18 (previously presented): The cylinder as recited in claim 17 wherein the at least one aperture includes a plurality of apertures spaced axially next to each other.

Claim 19 (previously presented): The cylinder as recited in claim 18 wherein the first gripping device includes a plurality of axially spaced grippers.

Claim 20 (previously presented): The cylinder as recited in claim 18 wherein the first gripping device includes a plurality of axially spaced impaling pins.

Claim 21 (previously presented): The cylinder as recited in claim 17 wherein the first and second rotatable supports are rotatable with respect to each other so as to set a fold position of the signature.

Claim 22 (previously presented): The cylinder as recited in claim 17 wherein the second support is a spider having a first spider arm supporting the first tucking device

and a second spider arm supporting the second tucking device, the cover being fixed at one end to the first spider arm and at another end to the second spider arm.

Claim 23 (previously presented): The cylinder as recited in claim 17 further including a second cover covering a second of the plurality of gripping devices.

Claim 24 (previously presented): The cylinder as recited in claim 17 wherein the first rotatable support is a tucker spider and the second rotatable support a gripper spider.

Claim 25 (previously presented): The cylinder as recited in claim 1 wherein the first and second rotatable supports rotate about a same axis.

Claim 26 (previously presented): The cylinder as recited in claim 1 wherein the first rotatable support is a tucker spider and the second rotatable support a gripper spider.

Claim 27 (previously presented): A jaw folder comprising a folding cylinder as recited in claim 1.